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WASTEWATER DISCHARGE PERMIT

ISSUED TO:	SoloPower Systems	
SIC CODE:	3674, 3471	
PLANT TYPE:	Photovoltaic Module Manufacturing	
EPA CATEGORY:	40 CFR Part 433.17, Metal Finishing	
LOCATION:	6308 N Marine Drive Portland, Oregon 972203	
MAILING ADDRESS:	Same	
RESPONSIBLE OFFICIAL:		
PHONE NUMBER:		
EXPIRATION DATE:	September 15 th 2019	
PRETREATMENT		10/1/2014
PROGRAM MANAGER	Dan Parnell	Effective Date
PREPARED BY: EDB CHECKED BY: DPP		

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INTRODUCTION

PERMITTED ACTIVITIES

The permittee is authorized to discharge industrial wastewater to the City of Portland's sewer system in compliance with Chapter 17.34 of the City Code, the Bureau of Environmental Services Administrative Rules and any applicable provisions of federal or state laws or regulations and in accordance with discharge point(s), effluent limitations, monitoring requirements, and all other conditions set forth herein.

It is the permittee's duty to comply with all conditions of this permit. Any noncompliance with permit requirements constitutes a violation of Chapter 17.34 of Portland's City Code and, as such, subjects the permittee to enforcement action(s).

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Schedule A WASTEWATER DISCHARGE LIMITATIONS

Listed below are the waste discharge limitations not to be exceeded after **the permit effective date**. Applicable regulations include Chapters 17.34 (Schedule F of this permit lists the General Discharge Prohibitions) and 17.36 of the Code of the City of Portland and 40 CFR 433.17. The point of compliance with the discharge limitations shall be 1A.

POC (*)	Pollutant Name	Local Limit Daily	Categorical Limit (mg/L)	
	Name	Max	· ·	(<i>b</i> /
		(mg/L)	Daily	Monthly
	METALS	(mg 2)	Daily	Withinity
	Arsenic	0.2		
*		0.2	0.11	0.07
*	Cadmium			0.07
*	Chromium	5.0	2.77	1.71
	Copper	3.7	3.38	2.07
*	Lead	0.7	0.69	0.43
	Mercury	0.010		
	Molybdenum	1.4		
*	Nickel	2.8	3.98	2.38
*	Selenium	0.6		
*	Silver	0.4	0.43	0.24
*	Zinc	3.7	2.61	1.48
	NON-METALS (INORGANICS)			
*	Cyanide	1.2	1.2	0.65
*	pН	5.0-11.5 su		
	NON-METALS (ORGANICS)			
	1,2-Dichloroethane	0.5		
	2,4-Dinitrotoluene	0.13		
	Acrylonitrile	1.0		
	Chlordane	0.03		
	Chlorobenzene	0.2		
	Chloroform	0.2		
	Nitrobenzene	2.0		
	Pentachlorophenol	0.04		
	Trichloroethylene	0.2		
	Non-polar Oil & Grease	110		
*	Total Toxic Organics	see note 7	2.13	
Notes:	Total Todae Organics	See Hote /	2.10	

Notes:

- 1. This schedule may be revised upon written notification by the City to accommodate process changes by the permittee or as determined by the Director of Environmental Services.
- 2. In addition to the limits stated in Schedule A, the permittee shall comply with all other applicable City, State and Federal regulations.
- 3. The pollutant parameters marked with an asterisk (*) are the pollutants of concern. At a minimum, the permittee is required to monitor for pollutants of concern. All limits are applicable at the point of compliance.

SCHEDULE A WASTEWATER DISCHARGE LIMITATIONS

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- 4. The permittee is required to meet the <u>MOST</u> stringent limitation listed, denoted in bold type in the above table, when comparing the *Local Limit* column with the *Categorical Limit* column.
- 5. The City has Pollutant Prohibitions for certain individual organic compounds that are not amenable to biological treatment or that have a screening value or local limit that is less than the practical method detection level (MDL). Discharges containing concentrations of a prohibited pollutant above the MDL, as listed in Appendix 5, is a violation of City Code and this permit.
- 6. The permittee may request that no self-monitoring for TTO be required, provided that the permittee submits a Toxic Organics Management Plan (TOMP) and certifies, at a minimum of twice per year that: "Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for total toxic organics (TTO), I certify that to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewater has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organics management plan submitted to the control authority."
- 7. The TTOs regulated by this limit are the sum of all quantifiable measurable values greater than or equal to 0.01 mg/L (10 ppb) for the pollutants listed in Appendix 4. The organic compounds regulated for your federal category appear underlined in the list. If the compounds are also pollutant prohibitions, under Chapter 17.34 of City Code, discharges containing concentrations above the MDL, as noted in parentheses in Appendix 4, is a violation of City Code and this permit.

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Schedule B MONITORING AND REPORTING REQUIREMENTS

I. Periodic Compliance Self-Monitoring Report

		Fir	st Quar	ter	Seco	ond Qua	rter	Thi	rd Qua	rter	Fou	rth Qua	arter
Parameter	Sample Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Metals													
Arsenic (total)													
Cadmium (total)	Grab	\			\			✓			✓		
Chromium (total)	Grab	\			✓			✓			✓		
Copper (total)	Grab	\			✓			✓			✓		
Lead (total)	Grab	>						✓					
Mercury (total)													
Molybdenum													
Nickel (total)	Grab	>			>			✓			✓		
Selenium (total)	Grab	✓			✓			✓			✓		
Silver (total)	Grab	✓			✓			✓			✓		
Zinc (total)	Grab	✓			✓			✓			✓		
Non-Metals													
Cyanide (total)	Grab	>						✓					
pН	Continuous	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Oil and Grease	Grab												
(total)													
Total Toxic	Grab	✓						✓					
Organics (TTO)													
Discharge Volume		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Flow Report													
Due Dates		Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sept 15	Oct 15	Nov 15	Dec 15	Jan 15

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Schedule B MONITORING AND REPORTING REQUIREMENTS

Periodic Compliance Self-Monitoring Report, Notes:

- 1. Periodic Compliance Reports are to be submitted to the Industrial Source Control Division by the 15th of the month following the conclusion of the reporting period. Sampling, analysis, and reporting will follow the schedule above.
- 2. All official sampling shall be taken at the approved sampling location. (See Appendix 2: sampling location map.)
- 3. The permittee shall analyze samples for all listed parameters plus any other which might be expected to be present in significant quantities.
- 4. The permittee shall submit all self-monitoring results to the Industrial Source Control Division as part of their monitoring and reporting requirements.
- 5. All monitoring results are to be mailed to:

Industrial Source Control Division Bureau of Environmental Services City of Portland 6543 N. Burlington Ave. Portland, OR 97203

- 6. Periodic Compliance Reports are to be submitted by the 15th of each month following the report period for each sampling location. The reports shall consist of:
 - a. Statement of compliance/noncompliance, signed by the officially designated contact person (statement is found on bottom of the self-monitoring report form).
 - b. Sample analysis results recorded on the appropriate self-monitoring report form and chain of custody for sample collected.
 - c. Originals of all laboratory analysis sheets showing who analyzed sample, date and time sample was analyzed, analytical methods used, method detection limit, test result, and quality assurance/quality control.
 - d. Copies of pH charts (if any) showing violations (if any).
 - e. Any other reports that may be required.
 - f. Calculations of monthly average, if appropriate.

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Periodic Compliance Self-Monitoring Report (Notes continued):

- 7. The permittee shall instruct its laboratory that, if the oil and grease (total) concentration exceeds 110 mg/L, the laboratory must determine the concentrations of the polar and non-polar oil and grease fractions.
- 8. The City may reduce or increase the frequency of sampling, based on the analytical results submitted.
- 9. As per 40 CFR 403.12(g)(6), if an industrial user subject to the reporting requirements of Schedule B monitors any parameter from the official sampling location more frequently than required, using procedures specified in Schedule E14(c), the results of their monitoring must be submitted in the required report.
- 10. The permittee may either monitor for TTOs or submit a Toxic Organics Management Plan (TOMP) and certify that TTOs have not been discharged in the permittees wastewater and have been disposed of in accordance with the

SCHEDULE C COMPLIANCE SCHEDULE

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Schedule C COMPLIANCE SCHEDULE

SoloPower, Inc. shall submit an updated Accidental Spill Prevention Plan, and a Toxic Organics Management Plan, to the City for approval by December 15^{th} 2014.

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Schedule D SPECIAL CONDITIONS

1. pH

The Industrial Source Control Division has approved the method of monitoring of the wastewater pH at the time of discharge to the City Sewer system. This approval may be revoked at any time, if pH data are not representative of the sampling data obtained from the sampling manhole. To ensure that the basic City monitoring and reporting requirements are met, the permittee shall include a summary of significant pH excursions with its monthly reporting of parameters listed in Schedule B. This is in addition to the mandatory reporting of discharge violations within 24 hours of learning of these violations.

Significant excursions are defined as:

- a. pH excursions > 11.5, ≤ 12.5 for a <u>total</u> duration of more than 15 minutes in any calendar day.
- b. pH excursions > 12.5 for a total duration of more than 5 minutes in any calendar day.
- c. pH excursions less than 5.0 regardless of duration during a calendar day.

Each occurrence shall be reported with the date, time, duration and the maximum or minimum pH excursion reached. The monthly report shall contain the total time (in minutes) that the pH was outside the limits set in Schedule A.

The permittee is required to continue using a strip-chart-recording pH meter for continuous pH recording or any other pH control system recorder that meets with City approval. A daily record shall be kept for each day of plant operation, excluding those days when there is no process activity. The records shall be maintained and must be available for direct review or photo duplication by City representatives, if required.

Upon approval by the Industrial Source Control Division, pH monitoring may be performed at the designated point of accommodation instead of the point of compliance specified monitoring. The point of accommodation shall be located after all wastestreams have been combined and pretreatment has been completed. Performing the pH monitoring at the point of accommodation does not relieve the permittee of the responsibility for maintaining compliance at the sampling manhole--the pH limits are applicable at both the point of accommodation and the point of compliance.

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Schedule E GENERAL CONDITIONS

1. Accidental Spill Prevention Plan

To comply with Section 17.34.090 of the City Code, the permittee shall submit a new or revised Accidental Spill Prevention Plan (ASPP) to the Industrial Wastewater Management Section 90 days after the effective date of this permit. The plans shall include the following elements.

- a. A description of the hazardous substances handled and their potential points of entry into the City sewer system or storm runoff
- b. A description of the measures to be taken to prevent entry at the described points before a spill occurs
- c. Measures to be taken to contain a spill if one occurs
- d. A description of employee training in the prevention and control of spills
- e. A posted notice informing employees of the requirement to notify the Bureau of Environmental Services in case of spills or uncontrolled discharges.

2. Appeal

Upon receipt of a final industrial wastewater discharge permit, a permittee may appeal any of its terms or conditions to the Code Hearings Officer in accordance with procedures set out at Chapter 22.10 of the Portland City Code; provided that such an appeal shall include a copy of the permit that is the subject of the appeal, shall state the basis for the appeal, and shall be filed with the Code Hearings Officer and the Bureau of Environmental Services.

3. Authorized Discharge

All discharge and activities authorized herein shall be consistent with the terms and conditions of this permit, Chapter 17.34 of the City Code and the Administrative rules. The discharge of any pollutant in excess of these limits shall constitute a violation of the terms and conditions of this permit.

4. Bypass or Diversion

The diversion or bypass (the intentional diversion of wastestreams from any portion of a permittee's treatment facility) of any discharge, from facilities used by the permittee, to maintain compliance with the terms and conditions of this permit is prohibited except:

- a. When unavoidable to prevent loss of life or severe property damage.
- b. When excessive storm drainage or runoff would damage facilities necessary for compliance with the terms and conditions of this permit.

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4. Bypass or Diversion (continued)

The permittee shall immediately notify the City in writing of each such diversion or bypass, in accordance with the procedure specified in condition No. 23.

5. Certification

Legible copies of all applications, reports, and information submitted to the City shall be signed and certified as follows in accordance with 40 CFR 403.12.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

6. Chemical Storage

Chemicals shall be stored in a manner that will prevent the entry of these substances into the sanitary, combined sewer, or storm sewer system, or waters of the state.

7. Continuous Compliance

Compliance with Schedule E, No. 23 shall not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this permit.

8. Dilution Prohibition

It is unlawful for a discharger to use dilution as a partial or complete substitute for adequate treatment to achieve compliance with the standards and limitations set forth in this permit. The Director may impose mass limitations on dischargers who are using dilution to meet the applicable pretreatment standards or the requirement set forth in this permit.

9. Enforcement Provision

A violation of any conditions, standards or requirements of this permit constitutes a violation of Chapter 17.34 of the City Code and any rules promulgated thereunder. Therefore, the City may seek any or all of the remedies or penalties provided for in Section 17.34.110 of the City Code, including recovery of costs incurred by the City, in response to the following:

- a. Any violation by the permittee of the provisions in this Industrial Wastewater Discharge Permit.
- b. Any violation by the permittee of the provisions of the City Code.

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9. Enforcement Provision (continued)

c. Any violation by the permittee of an Enforcement Action requirement with respect to provisions set forth in this Industrial Wastewater Discharge Permit and the City Code and Administrative Rules.

The range or severity of enforcement actions taken by the City against the permittee will be determined by, but not limited to, the nature, magnitude, duration, and frequency of the violation as provided by City Code and Administrative Rules.

10. Extra-Strength Sewer Charge (ESSC)

Discharges exceeding 300 mg/L for the 5-day biochemical oxygen demand (BOD) or 350 mg/L total suspended solids (TSS) concentrations (as defined in Section 17.36.060(1) of the City Code) shall be subject to the extra-strength sewer charge (ESSC) established in Section 17.36.060(1).

11. Hazardous Waste Notification

The industrial user shall notify the Industrial Source Control Division Section, the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following 12 months.

12. Inspection and Entry

The permittee shall, at all reasonable times, allow authorized representatives of the City:

- a. To enter the permittee's premises where an effluent source or disposal system is located or where any records associated with this permit are kept.
- b. To have access to any required records and permission to copy these records. At no time can wastewater effluent data be claimed or held as confidential information.
- c. To inspect and evaluate any monitoring equipment or monitoring methods required by this permit.
- d. To sample any discharge to the sewer system.

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13. Liability

The City of Portland, its officers, agents or employees shall not sustain any liability due to the issuance of this permit or the construction or maintenance of facilities resulting from this permit.

14. Monitoring

- a. The permittee shall record the following information:
 - * The exact date, time, and place of sampling
 - * Name of person who collected the sample(s)
 - * Type of sample(s) collected
 - * The dates analyses were performed
 - * Who performed the analyses
 - * The analytical techniques or methods used
 - * The results of all required analyses
 - * Whether quality assurance and quality control laboratory procedures are followed
- b. Samples and measurements, taken to meet the requirements of the above condition, shall be representative of the effluent. Grab sampling techniques must be used for samples collected for pH, cyanide, phenol, sulfide, volatile organic compounds and oil and grease monitoring.
- c. All sampling and analytical methods used to meet the monitoring requirements specified in this permit shall, unless otherwise approved in writing by the City, conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants as specified in 40 CFR, Part 136. Laboratory quality assurance and quality control programs should be documented. EPA QA/QC programs should be followed.
- d. The permittee is required to document proper installation, and maintenance of flow monitoring and sampling equipment.
- e. If the results of the permittee's wastewater analysis indicate that a noncompliance has occurred, the permittee must notify the City's Industrial Source Control Division Section within 24 hours of becoming aware of the noncompliance. The permittee must also repeat the sampling within 24 hours of the effluent noncompliance or next process day and submit the analysis to the City within 30 days after becoming aware of the noncompliance.
- f. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

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14. Monitoring (continued)

g. If requested, the permittee shall provide or split discharge samples with the City of Portland Water Pollution Control Laboratory.

15. Permit Modification

This permit may be modified with 30 days prior written notification, in whole or in part, for causes including but not limited to the following:

- a. A change in the City's NPDES permit or any other condition that requires either a temporary or permanent elimination of any authorized discharge.
- b. To incorporate new or revised federal, state, or local pretreatment standards or requirements.
- c. Information indicating that the permitted discharge poses a threat to the City's collection and treatment system, POTW personnel, or the receiving waters and sludge.
- d. To correct typographical or other errors in the permit.
- e. Any significant change in the volume of a permitted discharge.

16. Permit Renewal

This permit is issued to a specific entity and cannot be transferred by the industrial user and must be renewed pursuant to Section 17.34.070 of the Code of the City of Portland and Permit Applications must be received 90 days prior to:

- a. Expiration date of current permit.
- b. In the event the permittee plans to cease operations at the present location, and plans to relocate within the City of Portland's jurisdiction and continue the same permitted activities.
- c. The permitted industrial process being significantly altered or changed so that pollutants not specifically mentioned in the current permit are present in the permittee's discharge.

17. Permit Suspension or Termination

- a. Violation of any terms or conditions of this permit or any applicable rule, standard, or order of the director of the Bureau of Environmental Services.
- b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts.
- c. Falsifying self-monitoring reports.
- d. Tampering with monitoring equipment.

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17. Permit Suspension or Termination (continued)

- e. Refusing to allow prompt access to the facility premises and records.
- f. Failure to meet effluent limitations.
- g. Failure to pay fines.
- h. Failure to meet compliance schedules.

18. Plant Closure

In the event the permittee plans to cease operations at the present business location, and not to relocate within the City of Portland's jurisdiction, the permittee shall inform this office, in writing, 60 days prior to plant closure.

19. Property Rights or Privileges

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges; it does not authorize any injury to private property or any invasion of personal rights; and it does not authorize any infringements or federal, state, or local laws or regulations.

20. Records Retention

All records of monitoring activities and results, including all original strip chart recordings for continuous monitoring instrumentation (and calibration and maintenance records), shall be retained by the permittee for a minimum of three years. This retention period shall be extended during the course of any unresolved litigation pertaining to the discharge of pollutants by the permittee, or whenever it is requested by the City, the Approval Authority (DEQ), the Regional Administrator (EPA).

21. Reporting Requirements

a. Accidental or Slug Loading

If accidental or slug loading to the sanitary sewer occurs, the permittee shall notify the City Permit Manager immediately. If no answer, then call the City Duty Officer at 503-823-7180, which is a 24-hour hotline available 7 days a week. A formal written report, discussing circumstances and remedies, shall be submitted to the City within 5 days of the occurrence.

b. Changes in Wastewater Characteristics

The permittee shall give notice to the Industrial Source Control Division Section 90 days before any facility expansion, production increase, or process modifications that result in new or substantially increased discharges or a change in the nature of the discharge.

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21. Reporting Requirements (continued)

c. Change in representative

If the responsible corporate official changes, notify the City within 10 days, as per 40 CFR 403.12 (1) (4).

22. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to the other circumstances and the remainder of this permit shall not be affected.

23. Significant Non-Compliance

The City of Portland is required to annually publish in the Oregonian newspaper a list of Industrial Users that, at any time during the previous 12 months, were in significant non-compliance (SNC) with pretreatment requirements. SNC is determined if a violation meets one or more of the following criteria:

- 1. Violations of wastewater discharge limits:
 - a. Chronic violations when sixty-six percent (66%) or more of all of the measurements taken for the same pollutant exceed the respective discharge limit for that pollutant during a six month period.
 - b. Technical Review Criteria violations defined as those violations in which thirty-three percent (33%) or more of all of the measurements taken for the same pollutant during a six-month period equal or exceed the product of the numeric limit multiplied by the applicable TRC:
 - i) conventional pollutants (BOD, TSS, fats, oils & grease)
 ii) all other pollutants, except pH
 TRC = 1.4
 TRC = 1.2
 - c. Any other violation(s) of an effluent limit that the City reasonably believes has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public.
 - d. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment, or has resulted in the City exercising its emergency authority to halt or prevent such a discharge.
- 2. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance.
- 3. Failure to provide required reports of any type within 30 days of the report due date.
- 4. Failure to accurately report noncompliance.

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23. Significant Non-Compliance (continued)

 Any other violation or group of violations, which may include a violation of Best Management Practices, which the City determines will adversely affect the operation or implementation of the local Pretreatment Program.

24. Slug Load Notification

If the permittee is unable to comply with all the conditions of this permit due to a breakdown of equipment or facilities, an accident caused by human error or negligence, or any other cause such as an act of nature, or should any condition cause the release of any slug load, the permittee shall:

- a. Immediately take action to stop, contain, clean up the unauthorized discharges, and correct the problem.
- b. Immediately call the City Permit Manager, if no response then call the City Duty Officer at 503-823-7180, which is a 24-hour hotline available 7 days a week. .
- c. Within five (5) days submit a detailed written initial report to the City Permit Manager describing the breakdown, the actual quantity of resultant waste discharges, the corrective action taken, the steps taken to prevent recurrence, and any other pertinent information.
- d. Samples shall be taken immediately upon discovery of the Slug load. Within 15 days, a follow-up report shall be submitted. The report shall contain analysis of samples taken during such discharge and samples taken after normal conditions have been restored. The samples, at a minimum, shall be analyzed for the parameters required in Schedule B. Sampling shall be continued until all parameters are within discharge limits.

25. Upset

a. Definition:

For the purposes of this section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an Upset:

An upset will constitute an affirmative defense to an action brought for noncompliance with applicable pretreatment standards, if the requirements of paragraph c are met.

c. Conditions Necessary for a Demonstration of an Upset:

A permittee who wishes to establish the affirmative defense of an upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

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25. Upset (continued)

- (1) An upset occurred and the permittee can identify the specific cause(s) of the upset.
- (2) The facility was, at the time, being operated prudently, efficiently, and in compliance with applicable operation and maintenance procedures.
- (3) The permittee has submitted the following information to the Industrial Source Control Division within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within 5 days).
 - * A description of the indirect discharge and cause of noncompliance
 - * The period of noncompliance, including exact dates and times or, if not corrected, the anticipated duration of noncompliance
 - * Steps planned or now being taken to reduce, eliminate, and prevent recurrence of the noncompliance

d. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset shall have the burden of proof.

e. Permittee Responsibility in Case of an Upset.

If reduction, loss, or failure of its treatment facility occurs, the permittee shall control production of all discharges in order to maintain compliance with applicable pretreatment standards until the facility is restored or an alternative method of treatment is provided. This requirement especially applies if the primary source of the treatment facility power is reduced, lost, or failed.

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Schedule F GENERAL DISCHARGE PROHIBITIONS

The permittee shall not discharge, cause to discharge or allow to discharge directly or indirectly into the City sewer system any of the following:

- 1. Wastewater containing substances in such concentrations that they inhibit or interfere with the operation or performance of the sewer system, or that are not amenable to treatment or reduction by the sewage treatment process employed, or are only partially amenable to treatment such that the sewage treatment plant effluent cannot meet the requirements of any agency having jurisdiction over its discharge to the receiving waters, or that prevent or impair the use or disposal of sewage treatment plant sludge and sludge products in accordance with applicable State and federal regulations;
- **2.** Any liquids, solids, or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction to cause fire or explosion or be injurious in any other way to the operation of the sewer system, or wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius (using test methods prescribed at 40 CFR 261.21), or discharges which cause the atmosphere in any portion of the sewer system to reach a concentration of 10% or more of the Lower Explosive Limit (LEL).
- **3.** Any solid or viscous substances capable of obstructing wastewater which will or may cause obstruction to the flow of wastewater or other interference with the operation of the sewer system;
- **4.** Any noxious, malodorous or toxic liquids gases, vapors or fumes, solids, or other substances which, either singly or by interaction with other wastes, may cause acute or chronic worker health and safety problems, a public nuisance, a hazard or interference with any part of the sewer system;
- **5.** Any industrial wastewater containing a hazardous or toxic substance which, either singly or by interaction with other substances, injures or interferes with the sewer system or constitutes a hazard to humans or animals, or creates a hazard in, or adversely affects the receiving waters, or results in such substances being discharged in combined sewer overflows or sewage treatment plant effluent in any concentrations in excess of limitations imposed by any permit, law or regulation;
- **6.** Any wastes, wastewaters or substances having a pH less than 5.0 or more than 11.5, or capable of causing damage or hazard to structures, equipment, processes or personnel of the sewer system, unless these limits are modified by permit.
- **7.** Any liquid or vapor having a temperature higher than 65 degrees Celsius (149 degrees Fahrenheit) or containing heat in amounts which will inhibit biological activity, or result in interference at the treatment plant. In no case shall a discharge to the sewer system contain heat in such quantities that the temperature of the treatment plant influent exceeds 27 degrees Celsius (80 degrees Fahrenheit);
- **8.** Any material trucked or hauled from a cesspool, holding or septic tank or any other nondomestic source, except such material received at designated locations under City contract or permit in accordance with any other applicable requirements of the City Code 17.34 or rules adopted hereunder;
- **9.** Any substance which may solidify or become discernibly viscous at temperatures above 0 degrees Celsius or 32 degrees Fahrenheit;
- **10.** Any material that has not been properly comminuted to 0.65 centimeters (1/4 inch) or less in any dimension;

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- 11. Any slugload, as defined in City Code 17.34 or rules adopted hereunder;
- **12.** Any substances with excessive color, as determined by the Director of Environmental Services, which are not removed in the treatment process;
- **13.** Any batch discharges without written permission from the Director of Environmental Services. Batch discharges shall comply with all other requirements of City Code 17.34 and rules adopted hereunder;
- **14.** Any concentrations of inert suspended or settleable solids which may interfere with the operation of the sewer system;
- 15. Any concentrations of dissolved solids which may interfere with the operation of the sewer system;
- **16.** Any radioactive material, except in compliance with a current permit issued by the Oregon State Health Division or other state or federal agency having jurisdiction;
- 17. Any substance which may cause sewer system effluent or treatment residues, sludges, or scums, to be unsuitable for reclamation and reuse or which interferes with the reclamation process. (In no case, shall a substance discharged to the sewer system cause the City to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under the Clean Water Act; any criteria, guidelines or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act (42 USC 6901), the Clean Air Act (42 USC 1857), the Toxic Substances Control Act (15 USC 2601), or any other federal or State statutes, regulations or standards applicable to the sludge management method being used, or any amendments thereto.)
- **18.** Petroleum oil, nonbiodegradeable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
- **19.** Noncontact cooling water (except that noncontact cooling water may be discharged to the separate storm sewer system upon approval by the Director of Environmental Services);
- **20.** Any substance that causes the City to violate the terms of its NPDES permit.

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Appendix 1 DEFINITIONS

Abbreviations

BOD₅ Five-day biochemical oxygen demand

mg/L Milligrams per liter

k Kilograms

m³/d Cubic meters per day

ppm Parts per million (assumed equal to milligrams per liter)

POTW Publicly owned treatment works
WPCL Water Pollution Control Laboratory

Averages for BOD, TSS, and chemical parameters are based on arithmetic mean of samples taken.

Definitions

Bypass

The intentional diversion of wastestreams from any portion of a permittee's treatment facility.

Compatible Pollutant

Biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, and additional pollutants that the City treatment works is designed to treat.

Conventional Pollutants

Classification of industrial pollutants, which includes BOD (biochemical oxygen demand), suspended solids, fecal coliform, pH (acidity/alkalinity), and other pollutants so designated by EPA, as defined by Section 304(a)(4) of the Clean Water Act.

Director of Environmental Services

The Director of Environmental Services of the City of Portland, Oregon, or that person's duly authorized representative or agent.

City, or City of Portland

The municipality of Portland, Oregon, a municipal corporation of the State of Oregon, acting through the City Council or any board, committee, body, official, or person to whom the Council shall have lawfully delegated the power to act on behalf of the City. Unless a particular board, committee, official, or person is specifically designated in these rules and regulations, wherever action by the City is explicitly required or implied herein, it shall be understood to mean action by the Director of Environmental Services of Portland, Oregon, or that person's duly authorized representative or agent.

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Effective Date of this Permit

The date this permit is signed by the Director of the Bureau of Environmental Services.

Expiration Date

From 1 to 5 years beyond the effective date of this permit.

Hazardous or toxic substances

Hazardous or toxic substances are those substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S. Code 9601 et seq.), section 502(13) of the Clean Water Act, and any other substances so designated by the Director of Environmental Services and contained in rules adopted pursuant to this Chapter.

Industrial Waste

Any liquid, solid, or gaseous substance (or combination thereof) resulting from any process of industry, manufacturing, commercial food processing, business, agriculture, trade, or research, including but not limited to the development, recovery, or processing of natural resources and leachate from landfills or other disposal sites.

Industrial Wastewater Discharge Permit

A permit to discharge industrial wastewater into the City sewer system issued under the authority of the City Code, which prescribes certain discharge requirements and limitation.

Interference

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the normal operation of the City sewer system, or which causes a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or any increase in the cost of treatment of sewage or in the cost of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations); Section 405 of the Clean Water Act, the Solid Waste Disposal Act (including Title II, more commonly referred to as the Resource Conservation and Recovery Act), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of RCRA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum Daily Discharge Limitation

The highest allowable daily discharge.

Nonconventional Pollutants

All pollutants that are not specifically designated as either conventional or toxic.

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Oil and Grease

Fats, Oils and Grease. Fats, oils and grease are those substances which are measured by USEPA Method 1664: N-Hexane Extractable Method (HEM) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM).

- (a) Non-polar fats, oils and grease are that portion of fats, oils and grease which is measured as non-polar (from petroleum sources) by USEPA Method 1664.
- Polar fats, oils and grease are that portion of fats, oils and grease which is (b) determined to be polar (of animal or vegetable origin) by USEPA Method 1664.

Pass Through

Pass through means a discharge which exits the POTW into waters of the United States in Quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

POTW

POTW means Publicly Owned Treatment Works, which includes any devices and systems, owned by a State or municipality, used in the collection, transportation, storage, treatment, recycling and reclamation of wastewater.

Pretreatment

The reduction of the amount of pollutants, the elimination of pollutants, or the alternation of the nature of pollutant properties in wastewater to a non-harmful state, prior to or in lieu of discharge of such pollutants into the City sewer system.

Sampling

- The "monthly average" other than pH is the arithmetic mean of samples collected a. during a calendar month.
- The "daily maximum" is defined as the greatest allowable value for any calendar b.
- c. The "four day average" is defined as the average of four discrete sampling events for a particular pollutant, which is determined by the sampling frequency and not necessarily four consecutive calendar days.
- d. A "composite sample" is a series of individual discrete samples taken at selected intervals based on either an increment of flow or time. The samples are mixed together to approximate the average composition of discharge to the City sewer system. A composite sample for one day shall consist of a pool of samples, collected over the operational period of the production day.

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e. A "Grab" sample is an individual sample collected in less than 15 minutes, without regard for flow or time.

f. A "Grab-Composite" is a minimum of four grab samples collected and preserved over a 24-hour period and combined to provide a representative sample of effluent being discharged.

Schedule of Compliance

A schedule of remedial measures, including an enforceable sequence of actions or operations leading to compliance with an effluent limitation or other limitation, prohibition, or standard.

Severe Property Damage

Substantial physical damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Slugload

A slugload is any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge.

Solid Waste

Any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits.

Solid Waste Disposal

The final placement of refuse that cannot be salvaged or recycled.

Solvent Management Plan

A plan that specifies the toxic organic compounds used, the method of disposal used (instead of dumping into wastestreams), and procedures for ensuring that toxic organics do not spill or leak into wastewater discharged to the City sewer system.

Total Dissolved Solids

The total dissolved (filterable) solids as determined by use of the method specified in the list of approved test procedures.

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Total Organic Active Ingredients

The sum of all organic active ingredients covered by the organic pesticide chemicals manufacturing subcategory, which are manufactured at a facility subject to the effluent guidelines for pesticides chemicals manufacturing.

Total Solids

The sum of dissolved and undissolved constituents in water or wastewater, usually expressed as milligrams per liter.

Total Suspended Solids

Total suspended matter that either floats on the surface or is in suspension in water or wastewater and that are removable by laboratory filtering (as described in *Standard Methods for the Examination of Water and Wastewaters*, current edition) or Guidelines Establishing Test Procedures for the analysis of Pollutants, contained in 40 CFR 136, as published in the *Federal Register*.(Bureau of Environmental Services Administrative Rules I[22])

<u>Upset</u>

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with applicable pretreatment standards, because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste

Unwanted materials left over from manufacturing processes, or refuse from places of human or animal habitation.

Wastewater

Industrial waste, sewage, or any other waste, including that which may be combined with any groundwater, surface water, or stormwater that may be discharged to the city sewer system.

Water Pollution

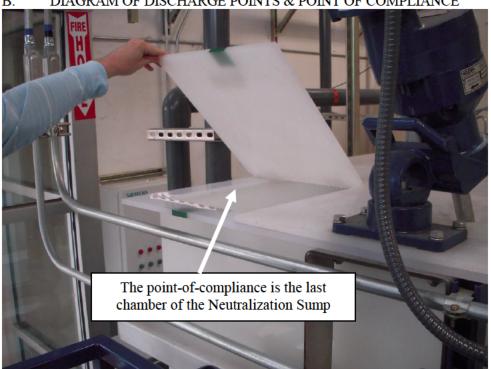
The addition of enough harmful or objectionable material to damage water quality.

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Appendix 2 SAMPLING LOCATION MAP

B: DIAGRAM OF DISCHARGE POINTS & POINT OF COMPLIANCE





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Appendix 3 RESERVED: ACCIDENTAL SPILL PREVENTION PLAN

To be prepared by the permittee and approved by the City. The Accidental Spill Prevention Plan (ASPP) is due by December 15^{th} 2014.

Bis(2-chloroisopropyl) ether

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Vinyl chloride (chloroethylene) (.050)

Appendix 4 Total Toxic Organics

The individual organic compounds regulated under 40CFR433 appear underlined in the following list.

(The organic compounds in bold type are also *pollutant prohibitions* under Chapter 17.34 of the Code of the City of Portland. The method reporting limit, in mg/l, is noted in parentheses for each compound.

Acenaphthene			Isophorone
Acrolein			Naphthalene
Acrylonitrile			Nitrobenzene
Benzene			2-nitrophenol
Benzidine			4-nitrophenol
Carbon tetrachloride (tetrachlorome	ethane)		2,4-dinitrophenol
Chlorobenzene			4,6-dinitro-o-cresol
1,2,4-trichlorobenzene	(.005)		N-nitrosodimethylamine
Hexachlorobenzene	(.005)		N-nitroxodiphenylamine
1,2-dichloroethane	, ,		N-nitrosodi-n-propylamine (.005)
1,1,1-trichloroethane			Pentachlorophenol
Hexachloroethane			Phenol
1,1-dichloroethane			Bis(2-ethylhexyl)phthalate
1,1,2-trichloroethane	(.005)		Butyl benzyl phthalate
1,1,2,2-tetrachloroethane			Di-n-butyl phthalate
Chloroethane	(.005)		Di-n-octyl phthalate
Bis(2-chloroethyl) ether			Diethyl phthalate
2-chloroethyl vinyl ether (mixed)			Dimethyl phthalate
2-chloronaphthalene			1,2-benzanthracene
2,4,6-trichlorophenol			(benzo(a)anthracene)
Parachlorometa cresol			Benzo(a)pyrene (3,4-benzopyrene)
<u>Chloroform (trichloromethane)</u>			3,4-Benzofluoranthene
2-chlorophenol			(benzo(b)fluoranthene)
1,2-dichlorobenzene	(.005)		11,12-benzofluoranthene
1,3-dichlorobenzene	(.005)		(benzo(k)fluoranthene)
1,4-dichlorobenzene	(.005)		<u>Chrysene</u>
3,3-dichlorobenzidine			<u>Acenaphthylene</u>
1,1-dichloroethylene	(.005)		<u>Anthracene</u>
1,2-trans-dichloroethylene			<u>1,12-benzoperylene</u>
2,4-dichlorophenol			(benzo(ghi)perylene)
1,2-dichloropropane			<u>Fluorene</u>
1,3-dichloropropylene(1,3-dichloro	propene)		<u>Phenanthrene</u>
2,4-dimethylphenol			1,2,5,6-dibenzanthracene
<u>2,4-dinitrotoluene</u>			(dibenzo(a,h)anthracene)
2,6-dinitrotoluene	(.005)		Indeno(1,2,3-cd pyrene
1,2-diphenylhydrazine			(2,3-o-phenylene pyrene)
<u>Ethylbenzene</u>			<u>Pyrene</u>
<u>Tetrachloroethylene</u>			<u>Fluoranthene</u>
4-chlorophenyl phenyl ether			<u>Toluene</u>
4-bromophenyl phenyl ether	((.005)	Trichloroethylene

(.010)

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Bis(2-chloroethoxy) methane	(.010)	Aldrin	
Methylene chloride (dichloromethane)	` '	Dieldrin	(.001)
Methyl chloride (chloromethane	(.005)	Chlordane (technical m	ixture and
Methyl bromide (bromomethane)	(.010)	metab	
Bromoform (tribromomethane)	(.005)	4,4-DDT	(.001)
Dichlorobromomethane	(.005)	$\overline{4,4-DDE}(p,p-DEX)$	(.001)
Chlorodibromomethane	(.005)	4,4-DDD (p,p-TDE)	(.001)
Hexachlorobutadiene	(.005)	Alpha-endosulfan	(.001)
Hexachlorocyclopentadiene	(.005)	Beta-endolulfan	(.001)
Endosulfan sulfate	(.001)	Endrin	(.001)
Endrin aldehyde	(.001)	Heptachlor	(.001)
Heptachlor epoxide	(.001)		
(BHC-hexachlorocyclohexane)			
<u>Alpha-BHC</u>	(.001)		
Beta-BHC	(.001)		
Gamma-BHC	(.001)		
<u>Delta-BHC</u>	(.001)		
(PCB-polychlorinated biphenyls)			
PCB-1242 (Arochlor 1242)	(.001)		
PCB-1254 (Arochlor 1254)	(.001)		
PCB-1221 (Arochlor 1221)	(.001)		
PCB-1232 (Arochlor 1232)	(.001)		
PCB-1248 (Arochlor 1248)	(.001)		
PCB-1260 (Arochlor 1260)	(.001)		
PCB-1016 (Arochlor 1016)	(.001)		
Toxaphene	(.001)		
2,3,7,8-tetrachlorodibenxo-p-dioxin (TCDI	<u>))</u>		

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Appendix 5 Individual Organic Compounds - Pollutant Prohibitions

POLLUTANT PROHIBITIONS	METHOD DETECTION LIMIT(mg/L)
Volatiles	
Bromodichloromethane	0.005
Bromoform	0.005
Bromomethane	0.010
1,1,1,2-Tetrachloroethane	0.010
1,1,2-Trichloroethane	0.005
1,1-Dichloroethene	0.005
Chloroethane	0.050
Chloromethane	0.005
Dibromochloromethane	0.005
Vinyl Chloride	0.050
Base/Neutral extractables	
1,2,4-Trichlorobenzene	0.005
1,2-Dichlorobenzene	0.005
1,2-Diphenylhydrazine	0.005
1,3-Dichlorobenzene	0.005
1,4-Dichlorobenzene	0.005
2,6-Dinitrotoluene	0.005
4-Bromophenyl-Phenyl Ether	0.005
Bis (2-Chloroethoxy)methane	0.010
Bis (2-Chloroisopropyl)ether	0.010
Hexachlorobenzene	0.005
Hexachlorobutadiene	0.005
Hexachlorocyclopentadiene	0.005
N-Nitroso-Di-N-Propylamine	0.005
Pesticides	
4,4-DDD (p,p -TDE)	0.001
4,4-DDE (p,p-DEX)	0.001
4,4-DDT	0.001
a-BHC (alpha)	0.001
b-BHC (beta)	0.001
d-BHC (delta)	0.001
Dieldrin	0.001
Endosulfan II (beta)	0.001

Appendix 5 POLLUTANT PROHIBITIONS	Expiration Date: Permit Number:	9/15/2019 433.051
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Endosulfan Sulfate	0.001	
Endosulfan-I (alpha)	0.001	
Endrin	0.001	
Endrin Aldehyde	0.001	
g-BHC (gamma) (Lindane)	0.001	
Heptachlor	0.001	
Heptachlor Epoxide	0.001	
Toxaphene	0.001	
Polychlorinated biphenyls (PCBs)		
PCB 1016	0.001	
PCB 1221	0.001	
PCB 1232	0.001	
PCB 1242	0.001	
PCB 1248	0.001	
PCB 1254	0.001	
PCB 1260	0.001	

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Permit Amendments

